

STURGIS. (F.R.) *My regards to Mrs.*

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ON THE ETIOLOGY
OF
HEREDITARY SYPHILIS.

BY
FREDERICK R. STURGIS, M. D.,
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[REPRINTED FROM THE NEW YORK MEDICAL JOURNAL, JULY, 1871,
AND JULY, 1873.]



NEW YORK:
D. APPLETON AND COMPANY,
549 & 551 BROADWAY.
1873.

PROSPECTUS FOR 1873.

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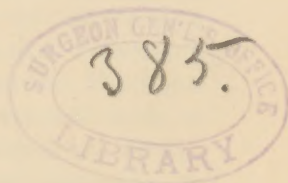
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PART I.

THE idea has for a long time obtained in works on venereal, that a father may procreate a child which shall show evidences of syphilis without the mother being infected at all; in other words, that so-called syphilitic semen has the power to transmit the disease to the ovum alone, and thence to the child, while the mother who furnishes the ovum, and of whom the foetus is a most intimate part, whose blood circulates through and nourishes this diseased product, escapes. Syphilis is essentially a poisoning of the blood in which the virus is supposed to be carried throughout the system, and by which it is transmissible.

Now, how the blood of the foetus can be charged with this active transmissible poison, can circulate through the mother's arterial system without producing the disease in her, appears incomprehensible. Either our belief that the virus of syphilis is contained in the blood is incorrect, that Pellizaris's experiments of transmission of the disease by the blood are false, or else we must consider that the reported cases of healthy mothers giving birth to syphilitic children are untrue.

To look at it in another light: it is a pure assumption on our part to say that the semen of a person afflicted with syphilis must be diseased, and capable of transmitting the infection. The only ground upon which it rests is that syphilitic fathers have syphilitic children. If the semen is diseased, of course the urine, the sweat, the saliva, the tears, the milk, in a word,

all the secretions and excretions of a syphilitic person must likewise be syphilitic and capable of transmitting the disease. I scarcely think there is any medical man who would advance such a statement, or who would find any proof to support it. Since the day when Cardinal Wolsey was accused of attempting to transmit syphilis to his royal master by whispering in his ear, such cases have been looked upon as idle fables, and have never commanded the serious attention of the profession.

Any one looking over the reported cases, where, of the two parents, only the father is diseased, will be struck with the meagre details of the mother's history; she is often barely noticed. Where she receives something more than a mere mention of her existence, it is usually in such language as, the mother is and has been perfectly healthy, or, the mother has never presented any symptoms of the disease; and sometimes she is examined, when the report is, the mother was examined and nothing suspicious was found.

Nor do I consider objections to such bare and unsatisfactory histories as these mere cavil. When it is considered how imprudent it often is to arouse the mother's suspicions by any questions about herself; how reticent women are upon such matters, even when they know about them; how far from uncommon it is for the earlier symptoms to be entirely overlooked, or, if noticed, to be ascribed to some other cause, the difficulty of obtaining a correct judgment in these instances can be better appreciated. For the most part the cases of infection by the father alone are derived from the older writers, and, becoming stock-cases, are copied *ad infinitum*, by every one who writes upon the subject, without the slightest question of their truth being raised. Diday, one of the advocates of this theory, when writing upon the subject in his work on Infantile Syphilis (Sydenham Society Publications, p. 17), gives but one case of his own observing, and curiously enough, although the father had undoubted syphilitic symptoms both before and after his wife's impregnation, and ought therefore to have had a syphilitic child, it was born and continued to be healthy. At the time of reporting the case the child was two years old.

Besides the causes already mentioned, which sometimes

render a correct solution of the problem impossible, there is one which has not been mentioned. It sometimes occurs that, in those cases where the mother is examined, she is found free from all symptoms. Is it therefore proper to conclude that she is to be exempted from having any share in the disease of the child? No, and for this reason: Between the disappearance of one set of symptoms and the appearance of the next, there is an interval of freedom from all signs of the disease, the so-called period of incubation. During this period it is often impossible to tell by an examination whether the patient has had syphilis or not. It may be objected that the induration left after the chancre, and of the inguinal glands, or the presence of cicatrices, would give a clew to the truth when all else fails. Undoubtedly glandular induration and that of the chancre, when present, are valuable diagnostic signs, but, unluckily for this view of the case, the former is not indelible, on the contrary, is frequently evanescent, and the latter in women is proverbially hard to find; in fact, is sometimes impossible to discover.¹

Then, again, all chancres do not have the ligneous hardness usually associated with them; they may be "parcheminé," and at the date of the examination, which is usually made some time after the inception of the disease, all signs of the induration have disappeared. Cicatrices do not occur until during the later stages of the disease, and a person may have had the earlier secondary manifestations, which have disappeared without leaving a trace of their presence. Given a case under such circumstances, how is an examination alone to enable us to decide whether the patient has or has not syphilis? Viewed in this manner, Ricord's case, which he describes in the fourteenth chapter of his "Lettres sur la Syphilis," is capable of a different interpretation from that which this eminent surgeon gives it. It is copied here *in extenso*, because it is one so often cited in support of the theory of paternal transmission, and the clearness and accuracy with which it is related render it

¹ In this connection consult De l'Induration chancreuse chez la Femme, par Alf. Fournier; Annales de Dermatologie et de Syphiligraphie, t. 2ième, p. 46.

less liable to the objection of carelessness made to the majority of the cases reported :

CASE I.—A young woman, accompanied by her husband, older than herself, consulted me with regard to her child, which had been put out to nurse. The child was infected with constitutional syphilis, which the mother accused the nurse of having given it. The child was almost completely covered with a moist squamous syphilide; the pourtour of the anus and of the lips was the seat of ulcerating mucous patches. The child was six months old; the nurse's statement was, that the first symptoms showed themselves at the age of six weeks.

The mother and the husband both declared to me that they had never had the disease, and the most careful examination failed to show any thing either present or past. The nurse, also, examined with the greatest care, seemed to me to be perfectly healthy. Her child, which she was suckling at the same time as the diseased nursling, was perfectly well.

I was exceedingly puzzled in my attempts to discover the origin of this child's syphilis, when, the next day, I was consulted by a young cavalry-officer for a plantar and palmar psoriasis. He questioned me, with the most touching solicitude, with regard to the illness of the child which had been brought to me the day before, and he confided to me his share in the affair; but, being ignorant of the laws of inheritance, he was surprised at the child being diseased, especially as he said he thought himself cured, and had not a single symptom of the disease when he had connection with the mother, who entirely escaped infection.

In this case there are four parties—father, mother, nurse, and cavalry-officer. Of these only one, the latter, shows symptoms of the disease. The father and nurse can be excluded; the former, because it makes no sort of difference whether he did or did not have syphilis, the latter because of her child's good health; had she been syphilitic, it would have been so also. Two are left, mother and cavalry-officer. He undoubtedly is one source of the child's disease, and the question is, was he the only one. His symptoms are syphilitic psoriasis; how far back do his contagious symptoms date? This eruption is generally a late form of the disease, but may occur chronologically anywhere from six or eight weeks to two years and more after the primary lesion.¹ The child is

¹ Consult Cullerier, "Atlas of Venereal Diseases," translation by Bumstead, p. 284; Bassereau, "Traité des Affections de la Peau symptomatiques de la Syphilis," p. 498; Bumstead, "Pathology and Treatment of Venereal Diseases," pp. 406, 408, 546; Reder, "Pathologie und Therapie der venerischen Krankheiten," p. 246; Müller, "Compendium der venerischen Krankheiten," p. 233.

six months old, which, added to the nine months it was *in utero*, makes fifteen months. Fifteen months back the officer confesses to have had syphilis, and is it so improbable to suppose that, notwithstanding his belief that he was well when he had connection, he was mistaken, and really did have contagious symptoms at the time he had his intercourse with the mother? Is it so improbable that the mother was diseased, and may have known nothing about it? I believe not, and in proof of my assertion I refer the reader to two cases mentioned in Bumstead's work (pp. 478, 479), where the patients had incontestable signs of syphilis, and were yet totally ignorant of the fact. At the time she was examined by Ricord she was either well, or, what is not unlikely, in the period of transition, when she would not probably have had any symptoms indicative of the disease, but which she might have shown had Ricord had an opportunity of examining more than once. I am well aware how readily this explanation might be looked upon as more ingenious than correct, but, when viewed by the results of other cases which I shall quote, it will not, I trust, appear so far fetched. Since I wrote the foregoing paragraph, I chanced, while looking over Zeissl's work, "*Lehrbuch der constitutionellen Syphilis*," p. 317, to find the following statement, which to a certain extent is confirmatory of my view: "I have noticed as a rule that women, whose husbands are suffering from so-called latent syphilis, not only quickly fade and lose their former blooming appearance, even if they have never been pregnant, nor had any miscarriages, but that sooner or later in such leucæmic women glandular tumors and ostroscopic pains make their appearance together with nodes upon the sternum, cranium, tibia, etc., and that these symptoms disappear under anti-syphilitic treatment only. *I recall to mind a case where the man affected with psoriasis palmaris was the father of two syphilitic children who died soon after birth. The mother remained apparently healthy until after the second confinement, when an undoubted psoriasis palmaris showed itself in her.*"

Cullerier, in 1854, in a paper read before the *Société de Chirurgie de Paris*, advanced the statement that the influence of the father was *nil* in the contamination of the fœtus by

hereditary syphilis; that it depended upon the mother; so long as she remained free from disease, the child was safe. In the introduction to his work, "Précis iconographique des Maladies vénériennes," he says: "I have since met with new facts which corroborate those I have already observed. I have under my care seven children affected with hereditary syphilis. In six, I have verified the disease in the mother. In the other, the father and mother both denied any previous disease, so that one cannot be accused of it more than the other. I have known eight men suffering from secondary syphilis impregnate their wives, and their children are exempt." He gives two cases in full, which occurred in his practice, and which first induced him to differ from the generally-received opinions of the day:

CASE II.—An officer in the French Army contracted an indurated chancre, followed by a squamous syphilide, mucous patches of the anus, ulcerations of the mouth, impetigo of the scalp, alopecia, and induration of the cervical ganglia. After following treatment for fifteen days, he was salivated. In spite of all this, he married, and shortly after impregnated his wife. She escaped infection, and the child also. At the time the case was reported, the son was eighteen years of age, and had never shown the slightest symptom of the disease (*op. cit.*, p. 87).

CASE III.—Indurated chancre six months before marriage; subsequent symptoms: roseola, cervical adenitis, and trouble in the throat. During this condition of the husband the wife became pregnant. She escaped infection. The child was born healthy, and has remained so for fifteen years (*op. cit.*, p. 88).

These cases of Cullerier were followed by observations bearing upon this subject published by M. Notta in 1860, and by M. Charrier in 1862. The conclusions these gentlemen arrived at were similar to those of Cullerier, viz., that, provided the mother escaped infection, the children were safe. I append their cases in a tabular form:

SYNOPSIS OF M. NOTTA'S CASES OF INHERITED SYPHILIS.—ARCHIVES GÉN.
DE MÉDECINE, MARCH, 1860.

Cases.	Condition of Father.	Condition of Mother.	No. of Children or Pregnancies	Condition & Ages.
Case 1.	Indurated chancre, etc. At time of marriage, he had an exostosis of the ulna, and a syphilide on the outer surface of the forearm. Followed four years afterward by orchitis of both testes; his syphilide on the arm still continuing.	Healthy.	2.	Healthy. 7½ and 6½ years.
Case 2.	Indurated chancre, mucous patches, alopecia, etc. One year after, all the symptoms having disappeared, he married. Two months after marriage, mucous patches returned on the tongue, which lasted one and a half year. Free from symptoms he impregnated his wife, when a month after he presented himself with palmar psoriasis.	Healthy.	1.	Healthy. 22 months.
Case 3.	Indurated chancre, etc. Three months after marriage, he presented mucous patches of the scrotum, in the throat, and round the anus. At this time his wife became pregnant. The mucous patches continued thro' this and at the time of his wife's second pregnancy.	Healthy.	2.	Healthy. 3 and 2 years.
Case 4.	Indurated chancre, mucous patches about the scrotum and anus, and articular pains. At time of marriage, free from symptoms. Two months after marriage, squamous eruption on scrotum, which continued during his wife's pregnancy.	Healthy.	1.	Healthy. 7 months.
Case 5.	Indurated chancre, etc. Three years after marriage ulcerating gummata of the arm.	Healthy.	6.	Healthy. Ages of first two only given, 12 and 11 years.
Case 6.	Phagedenic chancre, followed two years later by orchitis and papular eruption. Between the chancre and his subsequent symptoms had noticed nothing suspicious. The orchitis and eruption came on at the time of his wife's confinement.	Healthy.	1.	Healthy. 15½ years.
Case 7.	Indurated chancre, followed by mucous patches in the throat, papular eruption of the scalp, cervical adenitis. Two years later, cerebral symptoms indicative of tumor of brain, incomplete hemiplegia, head-	Healthy.	1.	Healthy. 15 months.

SYNOPSIS OF M. NOTTA'S CASES CONTINUED.

Cases.	Condition of Father.	Condition of Mother.	No. of Children or Pregnancies.	Condition & Ages.
Case 8.	aches, and nocturnal pains. Recovery under use of iodide of potassium. He then married. Indurated chancre, mucous patches about the anus, nocturnal pains, alopecia, and engorgement of cervical glands. Three years after recovery he married.	Healthy.	1.	Healthy. 2 years.
Case 9.	Father had syphilitic manifestations anterior to the birth of the child. At time of the report a syphilitic eruption.	At time of conception had mucous patches of the throat, alopecia, nocturnal pains, and headache. Three years elapsed between the two pregnancies, during which time neither showed any signs of syphilis.	2.	The first child, when six months old, mucous tubercles about the anus and an eruption over body. The second child, eruption on body & mucous patches about scrotum.
Case 10.	Mucous patches in the month, alopecia, and a syphilide of the scalp. After recovery from these symptoms he married. Three months after, he had a syphilide which covered his penis and testicles. Three years later cerebral symptoms.	Four months after marriage, mucous patches of the vulva. Alopecia, and headache.	1.	Two months after birth cachexia, blotches, and ulcers over the body.
Case 11.	Indurated chancre three weeks before marriage.	Indurated chancres on the labia minora, seen five months later, with mucous patches about the anus and vulva.	1.	Died at the sixth month of intra-uterine life.

Here, again, are found precisely the same results as in M. Cullerier's two cases, viz., the child inherits the disease only when the mother has syphilis; provided she has escaped infection, it makes no difference whether the father has had it or not. In this series are four sets of cases:

1. Where the father at the time of conception has syphilitic symptoms, or where the diathesis is present, but the mother is free from disease.

2. Where the father shows no symptoms, nor is the diathesis apparently present, although he has had an anterior syphilis. The mother does not suffer from the disease.

3. Where the father has had syphilis, but shows nothing of the disease. The mother has had an anterior syphilis; and,

4. Where both are syphilitic at the time of conception.

Among these four sets of cases, eighteen children are born, fourteen for the first, and four for the last two sets. Of the first two sets, not one child is diseased; of the last two, all.

In other words, when the mother escapes infection, the children are healthy, but, where she is syphilitic, the children are so also.

SYNOPSIS OF M. CHARRIER'S CASES.—ARCHIVES GÉN. DE MÉDECINE,
SEPTEMBER, 1862.

Cases.	Condition of Father.	Condition of Mother.	No. of Children or Pregnancies	Condition of Children and Ages.
Case 1.	Primary lesion one month before marriage, followed by roseola. Wife became pregnant during his treatment.	Healthy.	3.	Healthy. 6, 4, 2½ years.
Case 2.	Palmar syphilide.	Mucous patches during pregnancy.	3.	One child died one month after birth with syphilitic symptoms. Two miscarriages, one at four months, the other at seven. The latter was born with mucous patches about the anus.
Case 3.	Indurated chancre, roseola. Ecthyma at time of wife's pregnancy.	Healthy.	1.	Healthy. 4 years.
Case 4.	Rupia and osteoscopic pains. At time of wife's pregnancy, node on clavicle and nocturnal cephalalgia.	Healthy.	1.	Healthy. 8 months.
Case 5.	Healthy.	Roseola and mucous patches four months before marriage. At time of marriage, impetigo of the scalp. Pregnancy one month after marriage.	2.	Abortion at third month. Children covered with copper-colored spots.
Case 6.	Mucous patches about the anus, three months before marriage. At time of marriage, specific ulcerations on the tonsils.	Healthy.	1.	Healthy. Age not given.
Case 7.	Before getting syphilis, he had two healthy children. Chancre (indurated), followed by impetigo of the scalp and cervical adenitis. One year later, ecthyma, and one year later still he had exostoses.	Healthy.	3.	Healthy. 4, 3, and 2 years.

In the second case on the list is a singular fact, which could not well be expressed in the tabular form, but which is none the less worthy of mention. Here the man's wife contracted the disease, but his mistress (for he had one) did not. Within a fortnight of the time that the wife was delivered of the seven-months' fetus with the anal mucous patches, the mistress had a child, which up to the age of three years had never shown any symptom. Objection may be made to this child being by some other man, but M. Charrier answers that in

this manner: "Cet enfant ressemble en tout point à son père, et qu'il a comme lui *une conformation toute particulière des pources*, que les *enfants légitimes* avaient également présentés."

Here are eight observations, in seven of which the father is syphilitic. In six of these eight, the mothers do not contract the disease; in two they have syphilis. What do we find? Wherever the mother is healthy, the children are so also; wherever the mother is diseased, the children are likewise diseased. And, in one case, this is strikingly exemplified: the husband communicates the disease to his wife, and all the children are syphilitic; but his mistress, who escapes infection, presents him with a perfectly healthy boy.

To close this paper, I quote one more case, which is particularly interesting and instructive. It is reported by Dr. Van Buren, of New York, in the first volume of the *American Journal of Syphilography and Dermatology*, and clearly demonstrates the fact which this paper seeks to show. The early part of the history, so far as syphilis is concerned, is not given, inasmuch as the patient declined an examination, but there is every probability that he had the disease at the time he married. Three years after his marriage (1861), he had "*retinitis syphilitica*," complicated by "*amblyopia potatorum*." Eight years after his last symptoms (in 1869), and eleven after his marriage, he came under Dr. Van Buren's care, with the following symptoms: "Irregularly nodulated and tender shins, superficial ulcers at the angles of the mouth, a yellowish patch on one tonsil, and a circular scaly spot as large as a sixpence on one of his palms." The mother was at the time of her marriage perfectly healthy, and had never been married before. In 1860, two years after her marriage, she also came under Dr. Van Buren's care, and the following is her record: "From the enjoyment of brilliant health at the time of her marriage, she had become gradually pale, weak, and emaciated, without obvious cause. She had nursed both of her children. I was unable to make out any symptoms of secondary syphilis, save a characteristic ulcer upon the side of the tongue, of at least six months' duration (query, was the ulcer or the syphilis of six months' duration?). She had also a gummy tumor the size of a hickory-nut, in the left *labium*

majus." She ultimately seems to have recovered, under treatment, from the syphilis, to die in 1867 of peritonitis due to an ovarian enlargement.

This couple have four children, first one born May, 1859, healthy at birth, and remained so when last seen, seven years after. Second child born June, 1860, with defective development of brain and spinal cord. This child, as far as I can learn, never manifested any of the ordinary evidences of congenital syphilis. It showed a great deal of tenacity of life, although idiotic and paraplegic, and died at the age of five, from the consequence of whooping-cough. The third child was born January, 1862. Dr. Van Buren received from the family physician, April 9, 1862, a letter as follows: "The child appeared quite healthy at birth and continued so until three weeks ago (i. e., two months after birth), when an eruption made its appearance (complicated with excoriations around the mouth and nose), which gradually invaded the whole body, and was in the writer's opinion 'decidedly syphilitic.' There are at present no marks of morbid action in the mother, but she has resumed the use of the corrosive sublimate, and is nursing the child." The boy had subsequently periostitis of the tibia and ulna, and in 1868, at the period of his second dentition, he had "unmistakable evidences of the disease upon his incisor teeth, the development of the enamel quite imperfect—in fact, what I call syphilitic teeth."

The fourth and last child was born October, 1869. The child is in "excellent health, having shown no evidences whatever of disease."

Here is the case of a healthy woman, free from disease, married to a man who, if he does not present evidences of syphilis, is under the influence of the diathesis at the time of his marriage. They have four children; are they all diseased? According to the generally-received opinion, they should have been. Throwing aside all preconceived ideas, what are the facts of the case? The first two children are free from syphilis, for, in the case of the second, idiocy and paraplegia, in the absence of other symptoms, are not sufficient to establish a diagnosis due to hereditary syphilis, merely because the father is syphilitic. The third child is beyond doubt diseased, and

what is the condition of the parents? Two years before this child was born the mother had a gummy tumor and an ulcer on the tongue. One year before the child's birth the father had "retinitis syphilitica and amblyopia potatorum." Both diseased; when did the mother's trouble begin? Dr. Van Buren thinks during the first pregnancy and lactation. But if so, unless acquired at a late stage of the pregnancy, how is the first child so healthy, and why does not the second one show syphilitic symptoms? They do not, however. It is the third one only which shows evidences of hereditary taint. The infection probably occurred somewhere between the second and third pregnancies. Four months after the birth of the second child the mother shows the symptoms detailed above, and "which were at least of six months' duration." From that it would seem that the mother became diseased at the very last part of the second pregnancy. If this view of the case be the correct one, we see these two facts: 1. That a mother begets non-syphilitic children so long as she is not infected, even though the father is syphilitic; and, 2. The moment she is diseased, the children are inevitably so. One other and still stronger fact: when the mother recovered, the next child was healthy, although the father was still under the influence of the diathesis; for two years after the child's birth he came under observation with marked symptoms of syphilis.

In the next paper I shall examine cases where the paternal influence is admitted; not all, for that would occupy too much time and space with no good result, but the most prominent ones, and show wherein the defects lie, so far as their scientific value is concerned. My object in writing these articles is to call attention to the fact of how little is known of the etiology of hereditary syphilis, and how needful it is, with our advanced knowledge upon the subject, to revise our former beliefs. To do this effectually, we must give up our blind reliance upon old authorities when they clash with newly-observed facts, and examine the question for ourselves, for in medicine, as in the other sciences, skepticism is the first step toward sound knowledge.

PART II.

IN my previous paper on this subject, published in the NEW YORK MEDICAL JOURNAL for July, 1871, I attempted to show by a series of cases, gathered from various sources, that, for a child to become syphilitic by inheritance, the mother must be diseased; but, were she to escape infection, it made no difference whether the father had syphilis, so far as the child itself was concerned. To put it in a few words: the semen is *per se* incapable of transmitting syphilis, I pointed out where the error lay in pronouncing the woman sound because nothing could be found upon her person, or because she denied having had the disease. I also noticed that in very many of the detailed cases the reporter seems to have been satisfied with the mother's statement of her health, or with the husband's avowal that she was quite well; in others, the woman was not seen at all; and in nearly, if not quite all, no mention is made of the woman having been examined, from which we are left to infer that she was not. Such defective proofs as these should hardly be brought forward or accepted in support of the paternal influence in hereditary syphilis, when there are such strong and well-authenticated cases for the contrary belief. There is sufficient evidence to throw doubt upon the truth of the old doctrine, and my object in writing these articles is to show that, although

the theory of the paternal influence *may*, perhaps, be correct, the proofs upon which it rests are defective, and that the belief which is so general upon the subject is based upon facts which are open to severe criticism. In selecting the cases for criticism I have copied from those whom I believe to be the best and most trustworthy defenders of this doctrine, from such men as Hutchinson of London, Langston Parker, of Birmingham, Diday, of Lyons, and others of equal weight. I shall report their cases in full, and then show in what respects they are defective as proofs of the point in question.

Mr. Hutchinson, in the second volume of the "London Hospital Reports," 1865, reports three cases where the children receive the taint from the father alone, the mother escaping infection. He gives in all eight cases; of these, five, or about sixty per cent., are born of parents who are both diseased. In the other three it remains to be seen how real the mother's good health was.

- I. (page 182.)—"A Child born Six Years after his Father contracted Syphilis, where the Latter had for long been free from Symptoms. Severe Disease in the Child. Progressive Improvement in the Younger Children.

"Mr. D., a big, powerful Scotchman, presenting every appearance of the most robust health, brought me his eldest son, a thin, dwarfed starveling boy of fourteen, the utmost contrast to his father. The boy's tibiæ were covered with nodes, and he had nodes also on the bones of both forearms; his face was typically syphilitic, his corneæ were opaque, and his test teeth were deeply notched. On a subsequent occasion Mr. D. admitted that before marriage he had suffered from syphilis, but said he had soon got well and had remained so ever since. He has still some iritic adhesions in one eye. At a later period Mrs. D. was also my patient, on account of a troublesome ozena. She displayed no positive symptoms of syphilis, nor did she appear to have suffered from such. From her I obtained the following facts as to herself and her children: All the latter were brought for my inspection. We appear to have a good instance of the younger part of the family escaping the taint. Mrs. D. has nursed all her chil-

dren, and, excepting 'debility,' has considered herself in good health.

"During her early pregnancies she repeatedly had aching pains in the left eye (eighteen years ago). Gradually she found that the sight with this eye was much impaired. She thinks it has been as bad as it is now for six years at least. She describes distressing pain in the brow and temple, occurring at times, and lasting a day or two, always in the left side. For many years she has been quite free from this frontal headache. Her eye was never visibly inflamed.

"The pupil of the defective eye (left) is smaller than the other, not half the size and decidedly smaller than natural, but quite round. With this eye she can only just make out No. 19, holding the book to one side and very near to her eye. There is nothing abnormal in the front parts of the eye.

"Mrs. D.'s family :

"1. A girl, stillborn.

"2. A girl, died at two years old, of scarlet fever.

"3. A boy, died, aged five weeks, of 'yellow jaundice.'

"4. Is our patient. The very type of syphilitic diathesis ; keratitis, notched teeth, earthy complexion, and numerous nodes (now aged fourteen).

"5. A girl, aged twelve, well grown, but of slightly-marked syphilitic physiognomy. Upper central incisors notched, but not so deeply as her brother's. She has had keratitis, and in both eyes are extensive synechiae. It is about a year since her eyes inflamed.

"6. A boy, aged ten, has perfect teeth of large size, good complexion. Has not suffered in his eyes.

"7. A girl, died, aged four, of whooping-cough.

"8. A boy, aged five, quite healthy.

"9. A boy, aged two, quite healthy."

Thus, out of nine children, only two show any thing which can be proved to be syphilitic (the fourth and fifth). Can the mother be looked upon as entirely healthy? True, neither the "*ozæna*" nor "*pain in the eye*" taken alone, is necessarily syphilitic, but considered together, with the fact that there has been extensive disease in the eye, renders it a question of doubt. Is it not likely the father infected the

mother? Let us retrace our steps and inquire into the history. The child was born six years after the father contracted the disease.

(Page 182.) The boy is fourteen years old. It is twenty years, therefore, at the time the case was reported, since the father was infected. Eighteen years back, the mother, during her earlier pregnancies, had repeatedly "aching pains in the left eye, distressing pain in the brow and temple," etc. Were these symptoms due to iritis? Supposing it to have been that, the probability is in favor of it being syphilitic, because the husband had syphilis about the time of, and probably during marriage, and sixty per cent. of all cases of iritis occur in syphilitic persons.¹ He has had the disease twenty-five years, and has been married certainly eighteen, perhaps longer, for the wife's "*earlier pregnancies*" took place eighteen years ago. Whether the first or second we are not told, but, granting it to have been the first, we must allow one year for the woman to become pregnant in. They would have been married then nineteen years, and the husband would have contracted his disease only one year before marriage, perhaps not even as long. When did his iritis appear? before or during his marriage? Upon that point we have no positive evidence, but we can approximate to the time. Syphilitic iritis is one of the so-called transition symptoms between the secondary and tertiary stages, appearing as a tertiary as well as a secondary manifestation, and occurs from four months to two years and more after contagion.² Persons having iritis are not likely to have that and nothing more; they usually have mucous patches, eruptions, etc., in conjunction with it.³ Is it so improbable to believe, then, that the husband had his iritis during his married life, together with other symptoms capa-

¹ Bumstead, "Pathology and Treatment of Venereal Diseases," third edition, p. 660, 1870. Wecker, "Études Ophthal.," tome i., p. 394.

² Cf. Bazin, "Leçons Théoriques et Cliniques sur la Syphilis, et les Syphilides," p. 69, 1866. Bumstead, "Pathology and Treatment of Venereal Diseases," p. 666, 1870. Lancereaux, "Traité Historique et Pratique sur la Syphilis," p. 190, 1866. Geigel, "Geschichte, Pathologie u. Therapie d. Syphilis," p. 283, 1867.

³ Cf. Ricord, "Iconographie des Maladies Vénériennes," pp. 109, 117, 1862. Bumstead, *op. cit.*, p. 666.

ble of infecting his wife? At any rate, although the evidence may not be strong enough to *prove* that the mother had syphilis, it is sufficiently so to cause doubt about her sound health, and whether the father was the only one of the parents who was diseased.

II. (page 187).—“*Case in Proof that Syphilis may be transmitted by a Father many Years after its Occurrence in Himself, and after his Apparent Restoration to Perfect Health.*”

“The following case illustrates some very important laws in respect to the transmission of syphilis: 1. That the taint may be transmitted by the father only. 2. That it may be transmitted by a father who not only has no symptoms at the time, but who has been for seven years in good health. 3. That with the lapse of time such a taint dies out, and that the later offspring may escape any severe degree of contamination.

“Thomas J., a boy, aged thirteen, was brought to me at Moorfields, on March 19, 1863: he had syphilitic keratitis, characteristic physiognomy, and dwarfed teeth. I asked Mr. Dixon to see him, in order to verify my conclusions, and he quite agreed with me respecting them. The father of the lad came with him. He was a very robust-looking man; on inquiry, he gave me, with perfect candor, the following history: He had been married eighteen years, and was now forty-seven years of age; two years before he married he had a venereal sore, which was followed by a rash on the skin. ‘It was hanging about him for a long time, five or six months at least.’ When he married he was in perfect health, and has never since had a single symptom he could suspect of being venereal. I examined his tongue, the palms of his hands, etc., and could not find the slightest evidence of the diathesis. His wife was in good health at the time he married her, and remained so afterward, except that she was weakened by bearing a large family very quickly. Her first was born a year after marriage, and died a few hours after birth. Thomas J., our patient, was the sixth born, and the eldest living. He suffered in infancy very severely from snuffles, rash, sores at

the corners of his mouth, etc.; his parents did not expect to rear him. There are five younger ones living, two girls and three boys, all (excepting one) healthy, and none have suffered from infantile symptoms. The one exception is delicate, but nothing special ails him. The wife died two years ago from an abscess in the back.

"We must add that the boy was not an example of extreme cachexia. His teeth were not so deformed as we often see them. His growth was good, and he had a fair degree of coloration. After the outbreak in infancy, until incipient puberty, he had been quite free from symptoms, and had enjoyed good health. The attack of keratitis was, however, a sharp one, and exceedingly well characterized; his hearing was not affected at all. In proof that the taint was slowly diminishing in his parent, we have the fact that the younger children have all lived and have escaped symptoms in infancy. Of course, the fallacy remains that his mother may have contracted syphilis as well as his father, either before or after marriage. Such a conjecture is, however, wholly unsupported, while the health of the younger children makes it highly improbable.

"The truthfulness of the father's statement is confirmed by the fact that the elder children all died, and, after careful consideration of the whole history, I am also of opinion that there is little doubt that this boy was born some years after his father contracted the disease, and that he has inherited the taint from his father only.

"I will now mention another case in which the probability seems very great that the taint has persisted for two years in the parent's system with sufficient virulence to infect the offspring even at the end of that period.

III. (page 189).—"*Rash, Condylomata, and the usual Symptoms, in an Infant born Two Years after the Disease in its Parent, and after other Children had shown it.*

"On January 18, 1865, Mrs. J. brought me her baby, a year old, with a large forehead, and condylomata around its anus. She said that when born it was healthy, but that at six weeks old it became covered with rash and had snuffles

in the nose. This rash lasted three months, and was at length cured by taking powders. The condylo-mata had now existed for six months. Mrs. J. had been married two years, and her husband had been throughout in excellent health; excepting once for ague, he has never been under medical care since his marriage.

"The first child was dead-born, at full time (boy).

"The second died at a month old, 'covered with rash, and with its nose stopped up.'

"The third, a girl, never had any symptoms whatever. I saw her, now a healthy, clear-complexioned girl of six years.

"The fourth, still-born, a seven months' child.

"The fifth, a boy, now aged three, quite healthy-looking, and never had any special symptoms.

"The sixth, the baby above alluded to.

"The mother has had no special symptoms. She is ailing when pregnant. She now has a doubtful-looking sore in the lower lip, but it is not positively characteristic."

In these two cases several points occur at once for criticism, but in the first place let us examine case No. 2. This loses much of its value as proof, from the mother not having been seen at all; she has died. Mr. Hutchinson assumes, on the husband's word, that she had never had syphilis. That can hardly be adduced as evidence for these reasons. The disease frequently goes unsuspected and unnoticed; the husband could not and probably did not examine his wife to see if she showed symptoms, and, had he, he would perhaps have been none the wiser. Mr. Hutchinson himself says, "the fallacy remains that his mother may have contracted syphilis as well as his father, either before or after marriage," but he then goes on to say, "Such a conjecture is, however, wholly unsupported, while the good health of the younger children makes it highly improbable." Grant that the conjecture is wholly unsupported in the mother's case, yet the statement of her freedom is also wholly conjectural, and as for the good health of the younger children making it highly improbable, I beg leave to differ. A syphilitic woman *may* entirely recover from her disease and bear *healthy* children; in support of this view, I refer the reader to Dr. W. H. Van Buren's case

in the first volume of the *American Journal of Syphilography and Dermatology*, and quoted in my former paper in this JOURNAL, July, 1871. That argument, therefore, loses a great deal of its force.

The opinion expressed that there is little doubt that "this boy was born seven years after his father contracted the disease, and he has inherited the taint from the father only," is somewhat startling. Here we have the extraordinary belief that a man may convey a disease from which he has seemingly entirely recovered for seven years, of which he has had no symptoms for that length of time, and to make it still more remarkable, the woman, although incapable of bearing other than diseased children, herself escapes harm.

In summing up case No. 3, Mr. Hutchinson states: "It is highly probable, in this case, that the infant inherits a syphilitic taint from its father, he having had the primary disease at least two years before its birth, and having, during most of that time, been free from symptoms."

In the history of the case, nothing is said about the man's disease; on the contrary, it is stated that he had enjoyed "excellent health."

Why, then, accuse him more than the woman of syphilis? He is to all appearances as innocent of disease as she. In fact, more so, for what is this "doubtful-looking sore in the lower lip, but which is not positively characteristic," which she carries? Accusing him of syphilis would seem to be an *arrière-pensée* to account for the child's condition.

In reviewing these three cases, I claim that the details given are not such as to prove the entire innocence from disease of the woman, and, until clearer and stronger evidence is adduced, belief in the doctrine of the paternal transmission alone of the disease must be suspended. Let us see if any other cases will support this belief. •

MARTINEZ Y SANCHEZ. *Thèse de Paris*, 1855, p. 30. *The only one given of his own Observation.*

"M. X., a medical man, had, near the close of his studies, contracted an indurated chancre in the balano-preputial fold; this chancre was followed by a confluent roseola and rheu-

matoid pains, symptoms which were dissipated at the end of some weeks by means of an energetic mercurial treatment (pills of protoiodide of mercury, mercurial fumigations, etc.). M. X. returned to his country, and, believing himself radically cured, did not hesitate to marry. At that time nothing could make him believe the possibility of having a diseased child, inasmuch as he had not had the slightest sign of constitutional syphilis. Eighteen months had passed by since the disappearance of the roseola and his marriage. His young wife became *enceinte*; the pregnancy went on to full term, and the accouchement showing nothing special. But the child, contrary to the father's belief, showed, five days after birth, pustules which were decidedly syphilitic, together with an acute coryza. It died at the end of twelve days. The father, much alarmed at this accident, the true cause of which he suspected, recommenced an anti-venereal treatment (liqueur de Van Swieten every evening), and continued it for two months. His hopes were not disappointed; he had a second child, strong and healthy, which up to the present time has shown nothing doubtful or abnormal."

There are, unfortunately, no means of judging of the length of time which had elapsed between the birth of the second child and the reporting of the case. The man's history is tolerably full, but the wife's is totally ignored; we are not even told if she is a healthy woman. Was he the only one treated, or, as frequently occurs in such cases, was she also included? The silence on her condition is much to be regretted, inasmuch as having the reports of cases where the disease of the mother is coincident with that of the children, and *vice versa*, it leads to the suspicion that the disease in the woman was ignored, or else overlooked. We are not told how soon, after the second treatment had been instituted, the second child was born. This is of some importance as regards the mother, for, if it were some while after, there was time, supposing the mother to have been infected, for her recovery, and hence the second child being born healthy. At all events, the case is lacking in such important details as to render it of comparatively little value in proving the point M. Sanchez wishes to.

VON BÄRENSPRUNG'S CASES. *Die Hereditäre Syphilis*, p. 87.

Out of ninety-nine cases reported by him, only two occur where the father was under the influence of the disease at the time of marriage, and during the wife's conception, where the children were not carried to full time, or were syphilitic at birth, and where the mother was *apparently* free from the disease. I say *apparently*, because, in reviewing the cases, we shall see if such was really the fact.

CASE I.—Six months before marriage, the man contracted an indurated chancre on the penis, for which he was treated by pills of protoiodide of mercury. Fourteen days before marriage, the following symptoms made their appearance: mucous patches on the tonsils, alopecia, and a papular eruption over the body. At his marriage, he still had these symptoms. He was treated by Zittman's decoction, and got well. His wife became pregnant soon after marriage, and was delivered of a six months' child, which lived only a few hours. It showed no marks of syphilis. Her health all this time was excellent, only that, a short time before the child was born, she had a slight scaly eruption on the scalp, and lost, not the hair of her head alone, but her eyebrows and eyelashes. She was examined, and, with the exception of the symptoms noted above, she had no signs of syphilis. The eruption was regarded as eczematous, and she was put upon decoe. sarsaparillæ c. senna internally, and unguent. hydrarg. præc. alb. externally, with simple diet. Under this course she recovered. A year and a half after her first confinement, she became pregnant again, and during the second half of her pregnancy the eruption and alopecia returned. She was delivered of an eight months' child, still-born, but well formed and free from syphilitic symptoms. He then goes on to say: "After a very careful examination of the whole body, I found nothing more than I found before, little spots covered with scales between the roots of the hair on the head; not a trace of glandular swelling nor any other symptom of syphilis. The *embonpoint* was good, complexion fresh; the growth of the hair was strong, although the patient had herself noticed a falling out of the hair of the head, the eyelashes, and eyebrows. I advised the use of salt-water baths for husband and wife. On the 2d of

October, 1862 (i. e., seven months afterward), I was again consulted, the salt-water baths had not been attended with much success; the squamous eruption on the scalp was more pronounced, and some aphthous erosions were present upon the sides of the tongue; her general appearance was as good as ever. The husband was free from all symptoms."

Was this eruption really nothing but eczema, and what were the aphthous patches on the side of the tongue? Were they also eczematous? The first time she had these symptoms they disappeared more rapidly than subsequently, but at that time she was using a preparation of mercury, which was not continued afterward, and it must be remembered that the earlier syphilitic eruptions disappear more rapidly than the later ones. Suppose these symptoms were nothing else than eczema, what evidence is there that the children were syphilitic? Nothing, beyond the fact that they were prematurely born. That alone is not a sufficient evidence of hereditary syphilis, for non-syphilitic women also give birth to children prematurely. Thus, one of two things from the history—either the mother was really free from the disease, and the premature birth of the children was not due to syphilis, or else both were syphilitic.

CASE II.—In this case, the father was not seen at all; it is stated that he was subject to ulcers on the legs and feet; whether due to syphilis or not is not known. No traces of syphilis found on the mother. The child was still-born and syphilitic.

As, in this case, one parent cannot be accused more than the other, it can scarcely be accepted as proving either side of the argument.

CAMPBELL'S CASE.—*London and Edinburgh Monthly Journal*, for 1844, p. 514.

"A young medical man, six months before marriage, contracted a chancre. No subsequent symptoms. The wife presented no symptoms of syphilis, but had three miscarriages. (The condition of the children is not stated.) Both were put upon mercurial treatment, when the wife for the fourth time became pregnant, and was delivered at full term, of a child

who lived without having syphilis. The length of time it lived is not given. Aside from the scanty details of the history, these points occur at once for criticism: Was the husband's chancre a simple one (chaneroid) or was it a primary lesion (indurated chancre)? Probably it was the former, for syphilis does not remain latent for six months, or longer, as seems probable in this case, without showing itself in some way. Miscarriages alone are not enough evidence that syphilis is the determining cause. It may be objected that after the use of mercury the miscarriages ceased. True; but what does that prove? It is no evidence that they were due to syphilis, for it is very possible that the same result might have been attained without its use. One more point: in 1823, when this case occurred, the distinction between the simple and specific ulcers was not recognized, and both were called indiscriminately syphilis. I should not have quoted this case at all, but for the fact that Vidal, in his "*Thèse pour l'Agrégation*," brought it forward to support the theory of the paternal transmission. It seems to me erroneous to consider it a case of syphilis at all in either parent, for the history of the disease is wanting in father, mother, and children, and the only points on which the idea is based are the father's sore, the mother's miscarriages, and their cessation after the use of mercurials, neither of which alone or together is sufficient to establish the diagnosis.

LANGSTON PARKER'S CASES.—*Modern Treatment of Syphilitic Diseases*, p. 297.

This gentleman records two cases, and I shall copy them in full, that they may speak for themselves:

CASE I.—"In August, 1852, I treated a patient for a well-marked attack of syphilitic lepra. The symptoms disappeared under the treatment, which was not very protracted nor was it regularly followed. In 1854, this patient married a healthy-looking young woman, who in 1855 was prematurely delivered of a dead child. In 1856 she was delivered, at her full time, of an infant, which appeared well and hearty for three weeks. It then began to 'snuffle,' then had puckering of and a dry eruption about the mouth, and two large vesicles re-

sembling pemphigus on the thigh and on the side. The child was treated by mercurial inunction on flannel bandages round the knees, and cured."

Mr. Parker then goes on to say: "In this case, the father remains without symptoms of syphilis for more than three years, yet the disease breaks out in the offspring. Mark what takes place on the part of the mother in the mean time: the premature birth of a dead infant, and a diseased living child cured by mercurials.

"The father during this interval has had no symptom of syphilis; the mother never had any in her life; the ova suffer, and doubtless by impregnation with diseased semen." From the history we have learned nothing about the mother's condition, and we are glad to be told in the summing up of the case that she had never had syphilis. Whether this was known by examination, or merely by what the husband and wife said, is left for us to guess at. The husband, we are told, has had "no symptoms for more than three years, and yet the disease breaks out in his offspring." But at the time of his marriage he had not been well so long as three years; it was only two. At that time he had "a well-marked attack of syphilitic lepra." What was this lepra? was it psoriasis? and was this the only symptom he had? The treatment was irregularly followed out and not protracted; is it not, therefore, probable that he had symptoms subsequent to his "lepra?" He was not seen at the time of his marriage; how are we to know that he did not at that time have symptoms capable of conveying the disease?

CASE II.—"A. B. was treated by me in the Queen's Hospital for a pustular syphilitic disease of the skin, of a very formidable character. The symptoms disappeared under the treatment employed. While he was in the hospital, his wife brought her infant to me, covered with scaly blotches. The child was plump and apparently healthy when born, but a few weeks afterward the patches broke out and the health began to decline. The mother had no symptom of disease; her breasts, as well as the infant's mouth, were free from ulceration. She was extremely anxious to be examined, fearing she might be laboring under some disease of the parts themselves.

I instituted the most careful examination with the speculum, not only once, but four or five times, and could never discover the least local disease. The child in this instance was alone treated and cured. I purposely abstained from treating the mother, whom I watched for nearly two years. She has never suffered from syphilis in any form."

What a very bald history of syphilis in the child; scaly blotches on the body and a decline of the health! Not a word about coryza or mucous patches. The mouth, however, was found free from ulceration. Is that of common occurrence in syphilitic children? Are scaly blotches on the body, without other symptoms, sufficient to establish the diagnosis of hereditary syphilis? Does not eczema attack infants, and is not the disease one which in its course becomes scaly? All these facts would go strongly against the supposition of the child's eruption being due to syphilis.

LANGSTON PARKER.—*The Mercurial Vapor-Bath*, p. 43.

"A young gentleman and lady married, with all the prospects of future happiness that fortune and apparent health could give. In due course the lady became pregnant, but miscarried. The same things happened in her second and third pregnancies; a good deal of mental uneasiness was produced, and some suspicions arose. The fourth child was born alive, but at six weeks old had snuffling and the eyes became bad; condylomata also appeared about the anus. A neighboring physician of great local eminence was consulted, who said rather abruptly, 'The child is diseased.' The parents, as may naturally be supposed, were shocked and horrified beyond measure, the father having at a remote period before his marriage been affected with syphilis; but the mother had never exhibited the least symptom of the disease. He was put upon a course of blue pill and iodide of potassium; the mother at first was not treated. A fifth child was born, who at the end of the first month had symptoms of syphilis. The father was again only treated, and a sixth child was again born diseased. The mother was again examined, but no trace of the disease could be found in the throat, vagina, uterus, or elsewhere. The patients were now placed under my care; I recommended

that both should be treated by a full course of mercurial vapor, and that no intercourse should take place during that period.

"The seventh child was born healthy, and has remained so, and neither father nor mother has as yet exhibited any further symptoms of disease.

"This case illustrates one or two very important points in the treatment of syphilis: 1. It establishes the law, which should always be acted on, that, in the event of two married persons, apparently healthy, having a diseased child born to them, both should be treated, although the mother has never shown the least trace of the disease. 2. It shows the efficacy of the mercurial-vapor treatment after the failure of several of the ordinary methods. It is true, an exception might be taken to this, since the mother was never treated till the mercurial vapor-bath was used; but, on the other hand, it is hardly probable that the father could have been cured by the previous treatment, or he would not have continued to procreate diseased children."

And is it not also singular that, despite the treatment the father goes through when he alone is treated, the children continue diseased, but, the moment the mother is included, the next child is born healthy, if the blame rest upon him alone?

Mr. Parker was undoubtedly right in putting the mother under treatment also, inasmuch as she probably was as much at fault as the father for the unhealthy condition of the children. But, if she was, as he believes her to have been, blameless, of what use putting her upon treatment at all? It was not until after the birth of the fourth child, that the parents were examined, and it is not such a matter of wonder that after four years, at the least, nothing was found upon the mother indicative of syphilis. I am assuming that she *was* examined at that time (although it is not so stated), from it being said that, after the sixth child was born diseased, "the mother was *again* examined." The father's history is very loose, "having at a remote period before his marriage been affected with syphilis." How remote; and did he have no symptoms during his married life? The repeated births of so many syphi-

litic children, their continuance after the father has been subjected to two successive courses of treatment, and their final cessation only after the mother has been treated also, should tend to awaken doubt as to whether the father was alone the cause. Nay, more, there is strong presumptive proof that the fault lay with the mother. These cases are like too many of their kind, very loose and careless in their details—too much so to admit of a scientific value. And, as if for the express purpose of contradicting himself in the belief that “syphilitic semen” can disease the ovum and its product, and leave the mother free, Mr. Parker reports two cases on the next page, where the fathers were infected with syphilis, in the one case apparent, in the other latent, and yet the mothers, and the children born to them, show no signs of the disease. How are these statements to be reconciled? Mr. Parker does not seem to attempt to do so; he merely states the fact.

On looking over the reported cases, one thing will, I think, strike every one, viz., the vague and unsatisfactory manner in which they are reported. Compare them with those given in the first paper on this subject, where it was argued that syphilitic transmission depended upon the mother, not upon the father, and, where the former was healthy, the children would not be infected. The difference in the way in which they are detailed is apparent; the one set being clear and logical, the other careless and unsatisfactory. Then, again, even the advocates of the theory of transmission by the father give cases where the father is diseased at the time of impregnation, but the mother is not contaminated. Yet the children grow up sound and well, whereas, were the doctrine of paternal transmission true, they should have been syphilitic. How is this discrepancy explained; why should such opposite results ensue from similar causes? Diday (*op. cit.*) says, and I quote him as he is one of the principal exponents of this theory: “The father, in fact, is very rarely affected with the disease *without communicating it to the mother before or during pregnancy*. . . . However, despite these inherent difficulties in establishing the paternal influence, there are few specialists who have not been able to do so” (p. 15). He then adduces cases from various authors, none of which are convincing, and pro-

ceeds to give a case of his own. A man has syphilitic symptoms both before and after his wife's impregnation; she escapes; the child is born at full term—syphilitic? The contrary; for the two years it was under observation it showed no symptoms of syphilis (p. 17). And this is the way in which he explains it: "It seems natural to admit that a diathesis which does not yet manifest itself, or no longer manifests itself by sensible effects, should be less marked, and consequently less capable of transmission than one of which the symptoms are actually present."

Very good, M. Diday, and now, for "*less capable* of transmission," etc., read "*incapable of transmission*," and there stop. Have we not already proof of the fact in the cases collated in the first paper; do we not know that contact beneath the skin with diseased secretions is all that is necessary to produce the disease, and, if the doctrine be true that semen is a diseased secretion, how do some mothers and children escape? Would they be so fortunate if the secretion of a primary lesion or a mucous patch were substituted for the seminal fluid?

Before concluding this article, I cannot refrain from quoting Mr. Berkeley Hill, of London. This gentleman says: "The transmission of syphilis from father to child is an accident of frequent occurrence, when the mother also participates in the infection before or during pregnancy. In such cases it is impossible to say the virus does not reach the child directly through the mother, and only indirectly through the father. It is also believed that the child can inherit the disease direct from the father, while the mother remains intact. The evidence in support of this view is at present imperfect, because syphilis in women often causes so little inconvenience, that its presence passes unnoticed. . . Diday ("*Infantile Syphilis*," p. 15, *et seq.*) and Lancereaux ("*Traité de la Syphilis*," p. 653) have collected the authorities whose observations support this theory, but they do not decide the question. In all, the escape of the mother is inferred from the absence of symptoms of syphilis sufficiently prominent to attract her attention.

"For an example of the kind of cases brought to prove this theory, Trousseau (*l'Union Médicale*, 1857), in a clinical lecture on syphilis in young children, relates that a patient

with syphilitic laryngitis told him that his wife, though always in excellent health, had been pregnant six times, but her children were all born prematurely, some of them being marked with blotches on the skin. Trousseau had no opportunity of examining the mother himself, and the health of both parents, excepting the laryngitis of the father, is not stated. It is not clear that the mother escaped disease; on the contrary, the continued abortions are strong presumptive reasons that she had syphilitic disease of the womb, which prevented maturation of the ovum. . . .

"Even if syphilis be not in active progress in the father, it is held by many that the ovum may receive syphilis with the semen. This is an extremely uncertain point, and must await further investigation." ("Syphilis and Local Contagious Disorders," p. 39, *et seq.*)

ADDENDA.

Since the first of these two papers was written, my friend Dr. E. S. Dunster, of this city, has kindly sent me the record of two cases occurring in his own practice, but which arrived too late for insertion where they properly belong. They show proof in favor of the doctrine of the paternal non-transmissibility of syphilis, and are here recorded as Dr. Dunster gave them:

CASE I.—"A. B., forty-seven years of age, contracted syphilis in 1854. Was treated pretty largely, but disease passed into constitutional form, well marked. Married in 1859. Wife perfectly healthy, and has remained so to date. Five children have been born. First (boy), in 1860; second (boy), in 1862; third (boy), in 1865; fourth (girl), in 1867; fifth (girl), in 1869. All these children are living and are perfectly healthy, well developed, and robust. No symptoms either of syphilis or scrofula. Two years I have been physician to the family, and know them all very well. The father, for about four years past, has been a frequent sufferer from nodes and neuralgia. Was very heavily and repeatedly mercurialized before he came into my hands. He is compelled almost constantly to take iodide of potassium in large doses, which keeps his pains in abeyance. His general health otherwise is good.

Has had no mucous patches since he has been under my care. Uses tobacco by chewing only."

CASE II.—"C. D., thirty-six years of age, contracted syphilis in the spring of 1862. Had but slight treatment. Married in 1863. Wife perfectly healthy. Had three children. First born in 1865; second born in 1867; third born in 1870. No miscarriages. Second child died in 1868 of cholera infantum. The other two are perfectly healthy. No traces either in teeth, skin, mucous membranes, osseous or lymphatic system, of the disease. The father has had roseola, mucous patches, nodes on one tibia, one clavicle, one ulna, and slight engorgement of one epididymis of one testicle. Is a great smoker, and has occasional mucous patches which yield readily to the iodide. This is the only symptom now for several years. This case was under my observation at the time of the original lesion, and during most of the time since then the treatment has been directed by myself."

These two cases are well and fully reported, including the history of father, mother, and children, and certainly seem conclusive. The other case in favor of the paternal transmission is one occurring in the practice of Dr. Kennard, of St. Louis, Mo., and is copied from the sixth volume of the "Medical Archives: "

"April 12, 1870.—I was called to see an infant aged four weeks, in the southern portion of St. Louis, which three days after birth began to manifest symptoms of hereditary syphilis, such as cutaneous eruptions, superficial ulcerations of the mucous membranes, and that general appearance of exhaustion peculiar to those cases, where venereal disease has been transmitted from the parent to the foetus, in the act of impregnation. Different from most cases of the kind, which, if born free from external symptoms of infection, generally remain so for three or four weeks, the child during that time appearing plump, with a smooth skin, this child, on the third day after birth, began to be covered with an eruption so rapidly that the mother and all the neighbors became alarmed, and concluded that the child had the small-pox, and a so-called M. D., who was summoned to the case, confirmed their suspicions by stating that it was an awful case of *hereditary small-pox*, and

most undoubtedly originated from the poison of variola, still lurking in the mother's system. He treated the case for small-pox for more than three weeks, when, no improvement occurring, but a gradual change for the worse alarming the mother, I was requested to see it. As incomprehensible as it may seem, this child, which had for more than three weeks been treated for hereditary variola, was born of a mother whom I had treated for small-pox two years previously, and whose face was badly pitted; so that, if such a thing were possible as hereditary small-pox, her history alone would have precluded all possibility of such a thing. It presented one of the most typical cases of infantile syphilis that I ever saw. The child had that characteristic look of a little debilitated old woman; the skin was wrinkled and loose, hanging in little folds to its emaciated form, and of a muddy, dirty, dead-leaf color, especially on the chin, forehead, and buttocks. There were chaps and cracks around the mouth, nares, and eyes, and a great portion of the body was covered with scabs, resulting from the bullæ of pemphigus; the nostrils were nearly closed, and consequently snuffling was very troublesome. There were great fretfulness and marked insomnia; the voice was weak, hoarse, and characteristic, and that indescribable odor peculiar to this disease was very marked; vomiting and diarrhœa were both very troublesome.

"The peculiar cough which accompanies bronchitis in these cases was very harassing, and in fact the child looked as though the ordinary termination of such severe cases, death, would soon and inevitably bring its sufferings to a close. It was not only in an extreme state of debility from the influence of the poison in its blood, but the plugging of the nares was so complete as to seriously inconvenience the child in nursing, and thus prevent its proper nutrition. It had three diseased nails on one hand and two on the other, and also three on each foot. They were abnormally thickened, yellow, dried up, and soon became detached.

"The sanio-purulent discharge from the nose, after the scabs obstructing the nares had been removed, was profuse and offensive, and there were troublesome follicular ulcerations and cracks on the inner portion of the alæ nasi, which

easily gave rise to slight hæmorrhage. The characteristic stridulous, squeaking, scarcely-audible cry, showed that the larynx was implicated, while the obstinate cough and impeded respiration proved that there was trouble in the lungs. The symptoms of bronchitis were indeed alarming.

“The eruption was composed of dark, purplish-red patches, papular in appearance, slightly elevated above the natural surface, and the cuticle over them raised into blisters, filled with a yellowish-green fluid, which soon escaped, mixed with blood and dried into scabs; under many of the scabs ulceration occurred. Mucous patches around the anus, on the perinæum and vulva, were very numerous, in the form of pinkish, elevated spots, moist, but soon began to dry and disappear under treatment. The eruption was a mixed, pustulo-papular one, with considerable amount of exudation, which formed into hard scabs, firmly adherent to the adjacent derma, and upon their detachment sluggish ulcers were found underlying them. Such are the details of the appearance of this case as first seen by me.” . . .

The peculiarities and points of most interest in this case were:

“1. The possibility of a father procreating a child so seriously diseased, when the only mode of communicating the syphilitic poison was through his semen, and at a time when the poison in his system manifested no activity whatever, proving that the poison may be transmitted to the offspring at any period of the constitutional disease, and when it is latent in the parent.

“2. The strange fact that a non-syphilized mother could nourish and bear to full term such a grievously-afflicted child, and yet escape contamination herself, both then and while continually nourishing it. . . .

“*This case furnishes an undoubted instance of the indirect transmission of syphilis by a diseased father, while the non-syphilized mother remained uninfected, proving that the poison reached the child directly, and only through the impure semen of the father, and that neither the diseased child nor the father communicated it to the mother (a fact the possibility of which is generally denied); and that the ovum be-*

came contaminated from the semen of the father when syphilitic disease was at the time in abeyance in his system. The inherited disease, as a rule, is more or less severe in the child in proportion to the virulence of the disease in the parent communicating the same, and the time which has elapsed since syphilitic symptoms were manifested in him or her, or in both, but it may be communicated at any stage from six months to twenty years after the empoisonment, and some contend that it can be transmitted *to the third generation.*"

Dr. Kennard's case is one certainly difficult to question, from the care with which it is reported. In reply to a note of inquiry I wrote him, he says: "I have purposely delayed answering your kind letter of inquiry, because I thought it would be much more satisfactory to you for me to examine the mother once more before doing so. She had been a patient of mine some years previous to the birth of the child, whose case was reported in the 'Medical Archives,' and been thoroughly examined by me on several occasions with the speculum, and otherwise, and never at any time did I detect any sign of venereal disease whatever. During the treatment of the child and since, she was repeatedly examined and most assuredly manifested no symptoms of syphilis at all. She is now in very robust health and most positively declares that she never had any venereal disease."

Only two things are needed to make Dr. Kennard's paper perfect: a history of previous births, if any, or of miscarriages; and a history of the father's disease. It is only by implication, and seemingly not from actual knowledge, that he is assigned as the cause of the child's disease.

Suppose, now, on questioning him, that he should deny ever having had the disease, to whom should we refer the child's illness? Perhaps the raising such objections may be regarded as quibbling; such is, by no means, my intention.

The reason why I express these doubts is, that this doctrine of paternal transmission has been questioned and denied by many competent authorities and upon pretty good grounds; better by far than those adduced by the adherents and believers in the old theory. To disprove their assertions we must have better arguments than we now possess. The cases

on the side of the paternal non-transmissibility are fuller, clearer, and more convincing than they are on the other; and, although this case of Dr. Kennard's, and the one of Ricord, are the best of any reported, they fail of being convincing. To be so, they should be exact in the details of both parents; if any thing is left doubtful or questionable, their value is lessened. For that reason I have left out those cases which I have seen, because I had unfortunately kept no record of them, and could not, therefore, speak positively about them. This much I remember was strongly impressed upon my mind: in all my cases I have been able to trace the disease, past or present, back to the mother, and in other cases, where, upon examination, the father was diseased, the mother healthy, and the child *reported* syphilitic, I have, on inspection of this latter, been able to diagnose some simple eruption, such as eczema or the like.

Although I do not say absolutely that the paternal transmission is *impossible*, I do not hesitate to say that it is *very improbable*, and on these grounds:

1. Because the reported cases are wanting in such details as to render them convincing.

2. Because this theory is entirely opposed to our present knowledge of the contagious properties of syphilis and its mode of propagation; and—

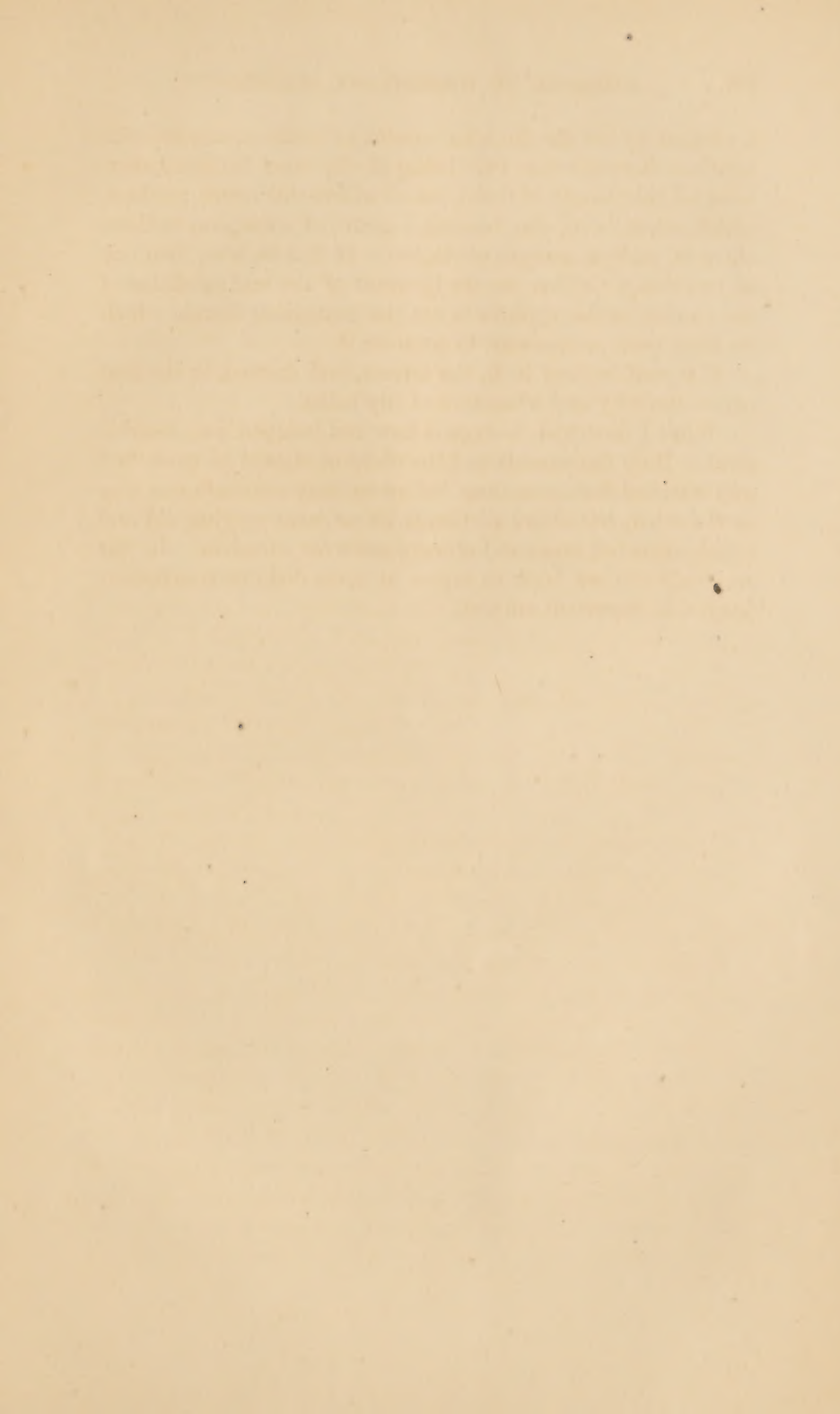
3. Because our knowledge of infantile syphilis has not kept pace with our progress in the other branches of the disease.

Here is really the way in which the proposition stands: Both sides grant the contagious properties of a primary lesion and of mucous patches; one side further argues that the semen of a person in whom the disease is either present or latent is also capable of conveying the poison; the other side demurs, and offers as proof against this argument the fact that many cases exist where the syphilitic father has perfectly healthy children, and in this connection the mother is found free from disease. The first side say this is possible, and go further yet: notwithstanding that this poison is eminently virulent and dangerous for those previously free from its influence, they insist that a perfectly healthy woman may and does receive this poisoned semen into her body, a diseased fœtus

is carried by her for the nine months of intra-uterine life (the relations between the two being of the most intimate character for that length of time), she nourishes this rotten product, which, when born, may become a centre of contagion to those about it, and yet escapes contagion. If this be true, then one of two things : either we are ignorant of the real condition of the mother, or else syphilis is not the contagious disease which we have been accustomed to consider it.

I myself believe it is, the former, and showed, in the first paper, the why and wherefore of my belief.

What I now wish to urge is new and independent observations. Both the parents and the children should be examined and watched for some time before we may conclude one way or the other, but above all things let us cease copying old and poorly-reported cases, and observe anew for ourselves. In this way only can we hope to arrive at some definite conclusions upon this important subject.



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